

## Product datasheet for **TF311847**

### **KPNB1 Human shRNA Plasmid Kit (Locus ID 3837)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	KPNB1 Human shRNA Plasmid Kit (Locus ID 3837)
<b>Locus ID:</b>	3837
<b>Synonyms:</b>	IMB1; Impnb; IPO1; IPOB; NTF97
<b>Vector:</b>	pRFP-C-RS (TR30014)
<b>E. coli Selection:</b>	Chloramphenicol (34 ug/ml)
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Retroviral plasmids
<b>Components:</b>	KPNB1 - Human, 4 unique 29mer shRNA constructs in retroviral RFP vector(Gene ID = 3837). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRFP-C-RS Vector, TR30015, included for free.
<b>RefSeq:</b>	<a href="#">NM_001276453</a> , <a href="#">NM_002265</a> , <a href="#">NM_002265.1</a> , <a href="#">NM_002265.2</a> , <a href="#">NM_002265.3</a> , <a href="#">NM_002265.4</a> , <a href="#">NM_002265.5</a> , <a href="#">NM_001276453.1</a> , <a href="#">BC036703</a> , <a href="#">BC036703.2</a> , <a href="#">BC003572</a> , <a href="#">BC024045</a> , <a href="#">NM_002265.6</a> , <a href="#">NM_001276453.2</a>
<b>UniProt ID:</b>	<a href="#">Q14974</a>
<b>Summary:</b>	Nucleocytoplasmic transport, a signal- and energy-dependent process, takes place through nuclear pore complexes embedded in the nuclear envelope. The import of proteins containing a nuclear localization signal (NLS) requires the NLS import receptor, a heterodimer of importin alpha and beta subunits also known as karyopherins. Importin alpha binds the NLS-containing cargo in the cytoplasm and importin beta docks the complex at the cytoplasmic side of the nuclear pore complex. In the presence of nucleoside triphosphates and the small GTP binding protein Ran, the complex moves into the nuclear pore complex and the importin subunits dissociate. Importin alpha enters the nucleoplasm with its passenger protein and importin beta remains at the pore. Interactions between importin beta and the FG repeats of nucleoporins are essential in translocation through the pore complex. The protein encoded by this gene is a member of the importin beta family. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2013]



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- shRNA Design:** These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- Performance Guaranteed:** OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.
- For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).